Deepening the Understanding of Students’ Study-Related Media Usage

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ABSTRACT

This article describes how numerous studies on student usage of various digital applications, social media and networks are available but studies on study-related media usage typologies are rare. Based on the instruments developed by Zawacki-Richter, Müskens, Krause, Alturki, and Aldraiweesh, as well as Zawacki-Richter, Kramer and Müskens, a short questionnaire was developed and tested with a cohort of 72 students. The results of the factor analysis suggest statistically relevant scales, which are suitable for classifying students along their media usage patterns through a subsequent cluster analysis. The three clusters that were determined can be compared with the usage types from Zawacki-Richter et al. During the instructional design process these heterogeneous groups and their media usage should be taken into consideration. The identified items can be applied in order to develop qualitative interviews for a deeper understanding of the usage types.

KEYWORDS

E-Learning in Higher Education, Learner Characteristics Non-Traditional Students, Students’ Media Usage Behaviour, Students’ Media Usage Typologies

INTRODUCTION

The characteristics of the target learner population are one of the main starting points for the design and development of educational opportunities. In order to provide appropriate learning environments, including materials and activities, these characteristics need to be analysed for specific target groups. The analysis of learner characteristics is one of the first steps in the ADDIE-model (Analysis, Design, Development, Implementation, Evaluation) of instructional design (Dick, Carey & Carey, 2014) and the model itself is described as being very useful for large and complex learning and teaching designs, although for small courses it may become redundant (Bates, 2014) and “[…] too time consuming to implement” (Kruse, 2009, line 20). And whilst it might be true that in practice an intensive analysis of the prospective students in each course is rather unrealistic, it remains “[…] extremely important to focus on the […] characteristics, motivation, abilities, prior knowledge, [and] experience […] of the learners” (Zawacki-Richter, Müskens, Krause, Alturki, & Aldraiweesh, 2015, p. 137).

In the context of distance education, teachers and students are challenged to develop specific media competencies in order to maximise the potential of distance education programmes. Learners should ideally be self-directed and capable of building and using their own personal learning environments (PLEs) (Campbell & Schwier, 2014). Whilst the idea of ‘digital natives’ (Prensky, 2001) as competent (self-)learners, building their own PLEs might sound tempting, we know that not every student (or teacher) is capable of doing so. Moreover, generation differences are not the issue, because Meta-Analysis did not support this claim and “[…] doing a proper analysis of the needs and characteristics

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of learners and avoiding the temptation to rely on generalizations” (Stöter, Bullen, Zawacki-Richter & von Prümmer, 2014, p. 436) are essential in order to develop appropriate learning scenarios.

This paper is based on findings from Zawacki-Richter et al. (2015, 2016) regarding students’ media usage. Using a latent class analysis (LCA), those authors describe a typology of four media usage patterns, namely “entertainment users, peripheral users, advanced users and instrumental users” (Zawacki-Richter et al., 2015, p. 136). Brandtzæg (2010), who then developed a typology of eight different media usage types, had carried out a comparative meta-analysis of 22 media usage typologies earlier. However, that meta-analysis did not have a focus on study-specific usage patterns, as did the studies by Zawacki-Richter et al. (2015, 2016). Whilst the latter typology provides a detailed insight into students’ media usage, a deeper understanding of student perceptions is needed in order to expand our knowledge about specific media usage and possible implications for the instructional design process.

The objective of this paper is to broaden our knowledge about students’ media usage and the impact their study related media usage has on the media selection process. The specific aim of the empirical analysis carried out in this study is to test the validity of the typology of the four media usage patterns presented by Zawacki-Richter et al. (2015, 2016). The instrument developed by those authors contains 246 items; a shorter, more directed questionnaire is required in order to identify media usage patterns in smaller, less heterogeneous groups and to identify typical students in each type to interview in order to collect qualitative data. Implications for the development of an economically useful method for describing the media usage patterns of students are discussed.

THEORETICAL FRAMEWORK

E-Learning in Higher Education in Germany

Whilst digital media are becoming increasingly important for formal, non-formal and informal learning processes (Allen & Seaman, 2013; Zawacki-Richter, 2011), specific, media-enhanced programmes that provide learning opportunities independent of time and space, are rather rare at campus-based universities in the German higher education system (Stöter, 2015), even though the digital infrastructure (e.g., a learning management system (LMS)) is available in all universities (Henning, 2015). Data from a survey on the availability of distance learning programmes offered by higher education institutions shows that, in addition to the FernUniversität Hagen (with 70,632 students enrolled in 2014), only a small proportion of students (28,286) are enrolled in distance education programmes at campus-based universities, although these programmes have become more relevant in universities since 2003 (Forum DistancE-Learning, 2014). Flexibility in study programmes is a relevant topic for the majority of traditional on-campus universities in Germany and around one billion Euro has been spent on this purpose since the mid-1990s. This has resulted in large quantities of electronic devices, and increased personal competencies of the staff involved (Henning, 2015). The large number of federally-funded projects emphasises the subject of e-learning, although the federal control instruments in higher education, which define objectives a university has to meet in order to receive additional funding through their state, do not support specific implementation strategies (Stöter, 2015). The reason for this, among other things, could be the strong focus on project funding rather than on sustainable development (Henning, 2015); similar developments have also been reported in Austria (Kreidl, 2011).

In Germany, the Hochschulforum Digitalisierung (HFD), sponsored by the Federal Ministry of Education and Research, was founded in 2014 to support universities in the strategic anchoring of digitisation, as well as the use of technology in teaching; together with universities, the HFD develops future-oriented scenarios in the digital world (Themengruppe Change Management & Organisationsentwicklung, 2016). Major challenges remain in terms of sustainable implementation of the digital learning innovations that have emerged. The HFD therefore pursues three main objectives:
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